

GOVERNMENT OF INDIA :: DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTER SHAR :: SRIHARIKOTA – 524 124
SRI POTTI SREERAMULU.NELLORE DISTRICT (A.P)

TENDER NOTICE NO. SDSC SHAR/HPS/PT/16/2014-15

On behalf of President of India, Head Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites sealed quotations for the following:

Sl No	Ref. No.	Description	Qty.	Tender Fee
03	SHSH 2014 00 2224 [SINGLE part basis]	Comprehensive Annual Maintenance contract for Chiller Packages at Bldg.145, SPROB, in SDSC SHAR, Sriharikota	1 Lot.	Rs.230/ -
04	SHVA 2014 00 2284 [TWO part basis]	Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building at SDSC SHAR Sriharikota	1 Lot.	Rs.230/ -

Last Date for issue of tender documents : **09.03.2015 at 16:00 Hours**

Due Date for receipt of tender : **11.03.2015 at 12:00 Hours**

Tender Opening Date : **11.03.2015 at 14:00 Hours**

Instructions to Tenderers:

For full details/ scope of work and terms and conditions etc., please see the enclosed annexures.

1. Tender documents can be had from Sr. P & SO, Purchase, SDSC SHAR, Sriharikota –524 124, SPSR Nellore Dist. A.P.
2. Tender Fee shall be paid in form of CROSSED Demand Draft only. The Demand Draft should be in favour of Accounts Officer, SDSC-SHAR drawn on State Bank of India, Sriharikota. The Tender Fee is NON-REFUNDABLE. Your request letter along with Tender Fee may be addressed to the Sr. Purchase & Stores Officer as indicated above.
3. Interested tenderers may, at their option, download the tender documents from the ISRO website www.isro.org & www.shar.gov.in and submit the offer along with the prescribed tender fee as per details given in the tender notification.
4. While requesting for Tender Documents, please superscribe on the cover as “Request for Tender document against Tender Notice No. **SDSC SHAR/HPS/PT/16/2014-15**”
5. Quotations received after the due date/time will not be considered.
6. While sending sealed quotation/offer, superscribe respective Tender Number and Due Date on the envelope.
7. SDSC-SHAR, Sriharikota is not responsible for any postal delays/loss of documents in transit.
8. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations in part or full.

TENDER FORM

FORM NO.P.004

TENDER NO. SHVA 2014 00 2284

) 520 :

DUE ON 11.03.2015, at 1200 Hours

TENDERER'S REF:

DATE:

To
HEAD, PURCHASE & STORES
SATISH DHAWAN SPACE CENTRE SHAR,
SRIHARIKOTA – 524 124
NELLORE DIST. (A.P)

Dear Sir,

I/We hereby offer to **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** at SDSC SHAR Sriharikota detailed below at the price hereunder quoted and agree to hold this offer open till I/We shall be bound to **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** mentioned date. You are at liberty to accept any quantity of the **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** tendered for or any portion of any one or more of **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** I/We not withstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such portion or portions of the **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** as may be specified in the said Purchase Order communicating the acceptance.

Sl. No.	Description	Qty.	Unit	Rate Rs.	Delivery Period
01.	Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building at SDSC SHAR Sriharikota	1	LS		

Note: Tenderers are requested to submit their offer on TWO part basis.

- A) LAST DATE FOR ISSUE OF TENDER FORMS: **09.03.2015 at 1600 Hours**
B) DUE DATE FOR RECEIPT OF TENDER : **11.03.2015 at 1200 Hours**
C) DUE DATE FOR TENDER OPENING : **11.03.2015 at 1400 Hours**

Place at which delivery is required: **SDSC SHAR, SRIHARIKOTA**

Date by which the supplies are required: **As per agreed delivery schedule.**

I/We have understood the terms of the tender annexed to the invitation to tender and have thoroughly examined the specification(s) drawing and/or pattern quoted or referred to herein and are fully aware of the, **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** required and my/our offer is to **Construction Supervision & Inspection Services for Construction of Second Vehicle Assembly Building** strictly in accordance with the requirements subject to the terms and conditions contained in the Purchase Order communicating the acceptance of this tender either in whole or in part.

SIGNATURE OF THE TENDERER

DATE:

(SEAL)

INSTRUCTIONS TO TENDERERS FOR SUBMITTING
TWO PART TENDERS

File No. : SHVA 2014 00 2284

ITEM : Construction Supervision & Inspection Services for Construction of
Second Vehicle Assembly Building

Please note the following instructions and submit your offer accordingly.

(a) **PART-I : TECHNO - COMMERCIAL**

This part shall contain only the technical details and specifications together with technical catalogues. All commercial conditions shall also be indicated in this part. Deviations, if any, to our specifications shall be brought out very clearly. Tenderers shall mention point-wise confirmation with regard to Technical Specifications given in our Enquiry. Price details should not be shown in this part.

The *TECHNO-COMMERCIAL Part (Part-I)* shall be submitted in a sealed cover duly superscribing as follows:-

PART -I : TECHNO-COMMERCIAL
FILE NO. : SHVA 2014 00 2284
DUE DATE : 11.03.2015 at 1200 Hours

(b) **PART-II : PRICE**

This part shall contain only the Price.

The *PRICE PART (Part-II)* shall be submitted in a sealed cover duly superscribing as follows:-

PART-II : PRICE
FILE NO. : SHVA 2014 00 2284
DUE DATE : 11.03.2015 at 1200 Hours

Both Part-I and Part II covers shall be kept in a separate cover duly superscribing as follows and sent to the following address:-

FILE NO. : SHVA 2014 00 2284
DUE DATE : 11.03.2015 at 1200 Hours
Part-I and Part-II covers individually sealed and kept in this cover.

To
Sr. Purchase & Stores Officer
Tender Section – SCF Purchase
Satish Dhawan Space Centre SHAR
SRIHARIKOTA – 524 124
SPSR NELLORE District, A.P.

In view of Two Part Tender, *fax offers will not be accepted*. The Offers submitted contrary to above instructions will be liable for rejection. Please take note of the above instructions and submit your offer before the Due Date i.e., 11.03.2015 at 1200 Hours

SECOND VEHICLE ASSEMBLY BUILDING (SVAB) PROJECT

REQUEST FOR PROPOSAL

For

**CONSTRUCTION SUPERVISION AND INSPECTION
SERVICES FOR CONSTRUCTION OF SVAB**



**Satish Dhawan Space Centre SHAR
Indian Space Research Organization
Sriharikota -524 124, A.P**

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PROPOSAL DOCUMENT, CLARIFICATION AND ADDENDUM

Proposals are invited from the interested Suppliers for the enclosed scope of work in two part bid. Part-1 Technical and Unpriced part of the work and Part-2 Priced Commercial part.

The RFP document is organized in four sections as follows.

- Section –A Introduction
- Section –B Scope of Work
- Section –C General Terms & Conditions
- Section –D Annexures

Title of the Entity: Second Vehicle Assembly Building (SVAB) Project

Title of the proposal: “ Construction supervision and Inspection Services for Construction of SVAB”.

Date of Public Notification issued: As per publication

Last Date of purchase / downloading tender Document: As per publication

Last date of submission of tender documents: As per publication

Place of submission of tender documents: SDSC SHAR, Sriharikota

1. PROPOSAL DOCUMENT

- 1.1. One set of proposal document along with the drawings is issued.
Supplier shall sign and stamp each page of proposal as token of acceptance & submit along with the offer.
- 1.2. Transfer of Proposal document issued to another party shall not be permissible.
- 1.3. Proposal documents shall remain the property of Department and if obtained by one intending Supplier shall not be utilized by another without the consent of the Department.
- 1.4. The proposal shall be completely filled in all respects and shall be submitted together with requisite information and Annexure. Any offer incomplete in any particulars is liable to be rejected.
- 1.5. If the space in the Proposal or any schedule or Annexure there to is insufficient, pages shall be separately added. These shall be consecutively page-numbered & shall also carry the Proposal document number and shall be signed by the Supplier and entered in the Index for the Proposal.
- 1.6. The Proposal with a complete set of the proposal documents shall be enclosed in a sealed cover ***super-scribed with name of work***, Proposal

notice number, addressed and sent by registered post to the Proposal Receiving Authority specified in the Letter Inviting Bid or put in the Proposal Box designed for the Letter Inviting Bid.

- 1.7. The sealed Proposals must reach the addressee before the time limit specified in the Letter Inviting Bid.
- 1.8. The Proposal shall be opened on the date and at the time, specified in the Letter Inviting Bid or as soon thereafter as convenient. Proposal not received in time shall not be considered.
- 1.9. Supplier shall set their quotations in firm figures and without qualifications or variations or additions in the terms of the Proposal documents. Proposal containing qualifying expressions such as "subject to minimum acceptance" or "subject to prior sale" or any other qualifying expressions or incorporating terms and conditions at variance with the terms and conditions incorporated in the Proposal documents are liable to be rejected.

1.10. ADDENDA / CORRIGENDA

Addenda/corrigenda to the tender document may be issued by SDSC SHAR prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions.

Such addendum/corrigenda will be distributed to each firm or person who had purchased the tender documents.

1.11. AMBIGUITY

Should there be any ambiguity or doubt as to the meaning of any of the tender clause/condition or if any further information is required, the matter shall be immediately brought to the notice of Head, Purchase & Stores, SDSC SHAR in writing for necessary clarifications prior to the opening of the tenders.

2. PREPARATION OF BIDS

2.1. SITE VISIT

The Supplier shall visit SDSC SHAR and acquaint himself fully with the requirements and no claims whatsoever will be entertained on the plea of ignorance of difficulties in the execution of the work. Before submitting the tender the Supplier shall be deemed to have clearly understood and satisfied himself regarding the work and services, all conditions liable to be encountered during the execution thereof and that prices, and/or compensation quoted in the offer are adequate and all inclusive with

respect to all factors, circumstances and conditions likely to be incidental, both direct and indirect, to the work and services.

2.2. VALIDITY OF OFFER

Bid shall remain valid for acceptance for a period of 6 (Six) months from the due date of submission of the Bid. The Supplier shall not be entitled during the said period to revoke or cancel his Bid or to vary the Bid except and to the extent required by Department and communicated in writing. Bid shall be revalidated for extended period as required by Department in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms and conditions of Bid finalized till that time.

2.3. COST OF BIDDING

All direct and indirect costs associated with the preparation and submission of Bid (including clarification meetings and site visit, if any), shall be to Supplier's account and the Department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bid process.

2.4. APPLICABLE LANGUAGE

The Bid and all correspondence incidentals to and concerning the Bid shall be in the English Language. For supporting document and printing literature submitted in any other language, an accurate English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Supplier.

2.5. ARRANGEMENT OF BID

The Bid shall be neatly presented on white paper with consecutively numbered pages. ***It should not contain any terms and conditions which are not applicable to the Bid.***

The Bid and all details submitted by the Supplier shall be signed and stamped on each page as token of acceptance by a person, legally authorized to enter into agreement on behalf of the Supplier. Corrections/ alteration, if any, shall also be signed by the same person. Supplier shall submit Power of Attorney in favor of the person who signs the Bid and subsequent submissions on behalf of the Supplier.

Department will not be bound by any Power of Attorney granted by the Supplier or changes in the constitution of the firm made subsequent to submission of the Bid or after the award of the contract. Supplier may

however, recognize such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be borne by the Supplier.

The cancellation of any document such as Power of Attorney, partnership Deed etc should be communicated by the Supplier to the Department in writing well in time, failing which Department shall have no responsibility or liability for any action taken by Supplier on the strength of the said documents.

Should the Supplier have a relative or relatives or in the case of firm or company one or more of its shareholders or a relative or relatives of the share holder (s) employed in a senior capacity in Department's organization, the authority inviting Bids shall be informed of the fact at the time of submission of the Bid, failing which the Bid may be disqualified or, if such fact subsequently comes to light, Department reserves the right to take any other action as it deems fit in accordance with any applicable law, Rules, Regulations of the like in force for the time being.

2.6. SCHEDULE OF PRICES

The schedule of prices shall be read in conjunction with all the sections of proposal document. For Lumpsum contract, the lump sum prices quoted by the Supplier shall be firm and fixed for the completion of the work, unless stated otherwise. The price must be filled in the format for 'Schedule of Prices' – **Annexure-I**

2.7. DOCUMENTS COMPRISING THE BID

Bids shall be arranged in the following order.

2.7.1. PART – I TECHNICAL AND UNPRICED COMMERCIAL PART

Technical and unpriced commercial part shall comprise the attachments, specifying attachment number arranged in the order as follows:

- (a) Submission of bid letter along with one set of proposal document duly signed and stamped as token of acceptance
- (b) Copy of Company's registration number certificate.
- (c) All the annexures enclosed in proposal duly filled, signed and sealed
- (d) Unpriced copy of schedule of prices with all other commercial terms and conditions duly filled (Prices to be kept blank), signed and stamped

- (e) Audited balance sheet including profit and loss account for the last three financial years showing annual turn over
- (f) Latest income tax clearance certificate.
- (g) List of projects in hand & completed during the last 3 financial year indicating the name of client, contact person, contract value, nature of work, work completed, work balance, name of Consultant, month & year of commencement & completion etc.
- (h) Organization chart for the proposed work with bio data of key personnel.
- (i) Pre-qualification criteria with supporting documents

2.7.2. **PART – II PRICED COMMERCIAL BID**

Priced commercial bid shall contain schedule of prices duly filled in, signed and stamped. No deviations, terms and conditions, assumptions, conditions, discounts etc. shall be stipulated in price bid. Department will not take cognizance of any such statement and may at their discretion reject such bids.

3. BID SUBMISSION

Bids duly filled in by the Supplier should invariably be submitted as stipulated in the Letter inviting bid.

Bids shall be submitted in the following manner, in separate sealed envelopes duly ***super-scribed*** as below:

3.1. **PART – I TECHNO-COMMERCIAL PART OF THE BID FOR THE WORK**

Envelope shall be marked with following:

PART-I TECHNO-COMMERCIAL BID

NAME OF CLIENT: INDIAN SPACE RESEARCH ORGANISATION, SDSC SHAR

TITLE OF THE ENTITY: SECOND VEHICLE ASSEMBLY BUILDING PROJECT

TITLE OF THE PROPOSAL: "Construction supervision and Inspection Services for Construction of SVAB".

DUE DATE AND TIME OF THE OPENING:

FROM: (NAME OF THE SUPPLIER WITH ADDRESS)

This envelope shall comprise the original signed copy of the proposal document, drawings, addendum/corrigendum (if any), unpriced copies of schedule of prices and payment schedule. The deviation statement and checklist shall be filled in and enclosed, without which the bid will not be considered. ***Techno commercial bid (Part-I) with Price Details shall be rejected***

3.2. **PART – II PRICE PART OF THE BID FOR THE WORK**

Envelope shall be marked with following:

<p style="text-align: center;"><u>PART-II PRICE BID</u></p> <p>NAME OF CLIENT: INDIAN SPACE RESEARCH ORGANISATION, SDSC, SHAR</p> <p>TITLE OF THE ENTITY: SECOND VEHICLE ASSEMBLY BUILDING PROJECT</p> <p>TITLE OF THE PROPOSAL: “ Construction supervision and Inspection Services for Construction of SVAB”.</p> <p>DUE DATE AND TIME OF THE SUBMISSION:</p> <p>FROM: (NAME OF THE SUPPLIER WITH ADDRESS)</p>

This envelope shall comprise one original plus three copies of “Schedule of prices”, “payment schedule” and “list of essential spares” duly filled in all respect. This envelope shall be sealed super-scribing **“DO NOT OPEN”**. Any other terms and conditions given in this part shall not be considered and if insisted upon by the Supplier, bids are liable for rejection.

Both the Parts (i.e. Part I & Part II) prepared as described above shall be inserted in another envelope and marked with the following:

TITLE OF THE PROPOSAL: “ Construction supervision and Inspection Services for Construction of SVAB”.

DUE DATE AND TIME FOR SUBMISSION:

FROM: (NAME OF THE SUPPLIERS WITH ADDRESS)

TO: **HEAD, PURCHASE & STORES**

SATISH DHAWAN SPACE CENTRE SHAR

ISRO, DEPT. OF SPACE

GOVT. OF INDIA

SRIHARIKOTA – 524124

SPSR NELLORE DIST, ANDHRA PRADESH, INDIA

- a) Department may open Part – I of the bid on the due date of opening, subject to meeting the minimum evaluation criteria. Price Bids (Part-II) of technically and commercially acceptable offers shall only be opened at a later date.
- b) Department reserves the right to reject any or all the Bids without assigning any reason thereof.

4. Pre-qualification Criteria

S. No	CRITERIA	Vendor Compliance (YES*/NO)
4.1.	Tenderer shall have experience in Supervision/Inspection of similar tall RCC framed structures/buildings of more than 40m height which involves huge amount of concrete to the order of 10000 Cu.M. and pile foundation	
4.2.	Prior experience of more than 10 years in executing such supervision & Inspection services	
4.3.	Full-fledged office setup with qualified staff of sufficient numbers to deploy the required people as per the tender	
*if YES please support with valid documents as a proof.		

5. DETERMINATION OF RESPONSIVENESS

The bid which does not satisfy the pre-qualification criteria as mentioned in Section (clause) 4 shall summarily be rejected and shall not be considered for further evaluation. SDSC SHAR will scrutinize bids to determine whether the bid is substantially responsive to the requirements of the tender documents. For the purpose of this clause, a substantially responsive bid is one which inter-alia conforms to all the terms and conditions of the entire Tender document without any deviations and reservations. The decision of SDSC SHAR shall be final in this regard.

6. BID EVALUATION

- 6.1. During evaluation, Department may request Supplier for any clarification on the bid upon additional documents.
- 6.2. Techno-commercial discussion shall be arranged with Supplier, if needed. Supplier shall depute his authorized representatives for attending discussions. The representatives attending the discussions shall produce authorization from his organization to attend the discussion and sign minutes of meeting on behalf of his organization if required. The authorized representative must be competent and empowered to settle/decide on all technical and commercial issues.
- 6.3. The complete scope of work is defined in the Proposal document. Only those Suppliers who undertake total responsibility for the complete scope of work as defined in the Proposal document shall be considered.
- 6.4. In case Bid does not fully comply with the requirement of Proposal document and the Supplier stipulates deviations to the clauses of the proposal in Schedule of deviations, which are unacceptable to the Department, the Bid will be rejected.
- 6.5. Performance of Supplier on similar works executed/ under execution shall be taken into consideration before selecting the Supplier for opening his price bid.
- 6.6. Department reserves right to visit client's site for verification/validation.
- 6.7. The time schedule for completion is given in the Proposal document. Supplier is required to confirm the completion period unconditionally.
- 6.8. Department reserves the right to accept or reject any bid in full or part without assigning any reasons. Such decisions by the Department shall bear no liability on the Department whatsoever consequent upon such decision.

- 6.9. The Supplier, whose bid is accepted by the Department shall be issued a Letter of Intent (LOI) to proceed with the work. ***Supplier shall confirm acceptance by returning a signed copy of the letter of intent (LOI).*** Thereafter Department may issue purchase order or Department will sign the Contract with successful Supplier
- 6.10. Department shall not be obliged to furnish any information / clarification to unsuccessful Suppliers as regards to non acceptance of their Bids.

7. Earnest Money Deposit

- 7.1. The tenderer shall remit Rs. 1 Lakh as Earnest Money Deposit (EMD) in the form of demand draft (DD) with the tender, failing which the tender will not be considered.
- 7.2. The EMD shall be remitted by a DD from any Nationalized Bank in favour of ACCOUNTS OFFICER Satish Dhawan Space Centre SHAR, Payable at SBI, Sriharikota.
- 7.3. Cheque will not be accepted towards EMD.
- 7.4. EMD by the unsuccessful tenderer will be refunded after the finalization of tender. EMD shall not bear any interest.
- 7.5. EMD of the successful tenderer will be refunded.
- 7.6. DD Number and other reference details shall be filled on-line, and the original DD shall be sent to Head, Purchase & Stores, Satish Dhawan Space Centre SHAR, ISRO, Dept. of Space, Govt. of India, Sriharikota – 524124, before the tender due date.

SECTION-A

Introduction

1. Introduction

The Spaceport of India, Satish Dhawan Space Centre, has been the host of all satellite launches using ISRO launch vehicles. A Second vehicle Assembly Building (SVAB) is being realized at Satish Dhawan Space Centre SHAR (SDSC SHAR), Sriharikota, 100 km north of Chennai. SVAB is a 96 m tall concrete building housing various platforms, doors, EOT crane, assembly towers, etc. for integration of launch vehicles. After completion of launch vehicle assembly over Mobile Launch Pedestal (MLP) on a bogie, it is hauled to either Second Launch Pad (SLP) or Third Launch Pad (TLP) for launch.

1.1 General features of the SVAB structure:-

- Plinth area at ground floor (includes vehicle check out area) will be 62.95 m x 70 m up to 7m level, further floor size reduces to 52m x 70m from 7 m level to roof top.
- Two building blocks each of 70.00 m length will be constructed with a clear gap of 36 m. Width of each block will be sufficient to accommodate all technological and design requirements.
- Ground floor of 62.95m x 70.00m area will be provided with Hardonite flooring for class A-A / Hauler loading in the main bay and vitrified with false flooring in the checkout area.
- Each block will contain 23 floors above ground and the level of highest floor will be 90.00m.
- Two blocks will be connected- at roof level and at gable ends above the door openings.
- Each block will be of RCC beam, column and slab construction up to 90 m level with provision of filler RCC wall as outer cladding and inside partition walls of bricks.
- The eves level of the building will be 96.00m.
- Above 92.00m all members except roof slab will be of steel structures. Roof slab over steel truss and purlins will be of sloped RCC construction with provision of integral water proofing.

- Pile foundation has been considered, based on available cohesion and friction values of soil.
- No trough or rain water down corner will be provided. All inner faces of the building will be provided with white washing with lime.
- All outside faces of the building will be provided with anti-carbonization /anti corrosive painting.
- Thermal insulation or 50 mm thick mineral wool with Aluminum sheet cover will be provided under roof.

Facilities provided in Second Vehicle Assembly Building (SVAB):-

- It will provide weather proof and air-conditioned enclosure.
- It will support 450 t capacity EOT crane at crane rail top level of 82.00m.
- It will accommodate and support 6 sets of folding cum Vertically Repositionable Platforms (FCVRP) and Swinging Cum Vertically Repositionable Platforms (SCVRP) and their drive mechanism accessories, etc.
- It will support Horizontal Sliding Doors (7 Pairs) in the front side and 2 pairs on the rear side along with their drive mechanism. -
- It will accommodate MLP track capable of taking the load of MLP with Fully integrated launch vehicle on it at operational wind velocity of 30 m/s.
- It will accommodate MLP ground anchor fixtures .capable of supporting MLP with vehicle on it at 30 m/s operational wind velocity.
- It will have 2 Nos. 70 t capacity hooks from roof of SVAB for chain pulley block support.
- It will accommodate AHU s, AC ducts, and Gas service pipe lines like Helium, Nitrogen, Compressed air, cable ducts and communication cables as per specifications.
- It will provide approach to reach various levels and locations through 2 lifts, 2 stair cases up to 86m from ground.
- It will protect all equipment and devices inside SVAB during cyclone
- With surviving wind velocity up to 230kmph.

- One external emergency stair case on eastern side will be provided.
- Pipe trenches to connect AC plant, electrical supply, other cables etc.

1.2 AC Plant Building

- This building is a RCC structure with plan dimension of 31.5m along East-West and 28m along North-South. The height of building is 5.0m from Finished Floor Level (FFL). It mainly houses chillers, pumps, switch gears and control room.

1.3 Outside Services & Utilities supporting structures

- Water supply lines from the inlet at the battery limit up to the distribution inside the buildings under scope.
- Sewage drains
- Tunnels and Trenches
- UG sump and septic tank

1.4 M.L.P Track Foundations

- For movement of Mobile Launch pedestal on a twin double rail track on strip RCC foundation will be provided between SVAB and launch pad for a length or about 1.75km. This will involve about 30,000 cum. of RCC.

General facilities

- Leveling sole plates, Grouting under sole plate by free flow expansive 'grouting material will be undertaken.
- Cross drainage pipes through track Foundation walls shall be provided to avoid water accumulation between the tracks.
- Culverts have been considered at specified locations.

Interface

- RCC foundation with holding down bolts, supply of sole plates/I beams and provision of grouting below sole plate has been considered under scope of civil work.
- Rail clamps, Track changeover system & Rails have been considered under scope of separate rail supply tender.

Section-B

Scope of Work

1. Scope of the work under this contract:

The total scope of civil work covered for realization of the above system shall be carried out under the supervision of service provider. All construction and testing works carried out at site are covered under this. They are mainly civil construction works:

1. Construction of the entire SVAB Building which includes major item such as

- a. Pile foundation, Pile cap construction and shallow foundation if any.**
- b. Mobile Launch Pedestal ground anchors, Nozzle Assembly Tower (NAT), S200 Assembly Towers (SAT-1 and SAT-2) foundations.**
- c. Construction of other building elements such as beam, column, stair case, corbels, RCC and Steel cat walks with railing, RCC walls, flooring and roof includes truss with metal deck concrete, metal inserts & embedment's. Windows, ventilation , septic tank and its allied pipe line services, water tank and its allied pipeline services etc.,**

2. Construction of AC plant building.

3. Construction of Rail Track foundation, Sole plates/I beams leveling and grouting, Drain and Embankment.

Quality Assurance Plan will be approved by the department in consultation with inspection agency and construction contractor. Once the document is finalized the party is responsible to ensure the inspection strictly as per the approved Quality Assurance Plan (QAP). All checkpoints are as per QAP required to be inspected thoroughly for meeting the system specification. Deviations if any shall be brought to the notice of the department and contractor for rectification.

In addition party shall bring out any quality lapses during construction but not limited to QAP, to the Departments notice for early rectification. Party shall depute qualified and experienced inspection engineer(s) as per the qualification given in Annexure I continuously at site for quality inspection as per site requirements.

2. Scope of Inspection Services:

The scope of inspection under each category and quality monitoring services are given below but not limited to:

2.1 Inspection during Construction phases of SVAB at site:

- a) Checking of construction materials and collection of samples by the contractor from steel, cement, sand, brick, aggregate and any other materials used for construction and stamping at site for testing. Review of test reports to examine the quality and acceptance based on the results. Inspection of received material at site to assess landing damages and recommend replacement measures.
- b) Visual inspection of soil during construction and intimating the abnormalities with respect to soil investigation report to contract manager for further inspection.
- c) Witnessing sample collections and tests conducted by construction contractors as specified in the latest Indian standards and certifying the test results as per QAP.
- d) Witnessing the execution of all concealed items before concreting and certifying the same.
- e) Dimensional verification as per department approved drawings and standards. Checking levels of pile foundations and pile cap and all floor levels.
- f) Supervising the load test of pile foundation as per IS: 2911.
- g) Checking the coordinates of various members of structures.
- h) Checking the alignment of RCC structural members.
- i) Checking of the staircase interfaces with the structures, etc.
- j) Inspection of dimensions, orientation & level of all RCC structures, beams & foundation etc., during various stages of construction.

Verification of the correctness of structural member construction with reference to approved detailed drawings.

- k) Review and supervision of safe construction practices during construction as per agreed HSE documents. Deviations to be informed to the contract manager immediately.
- l) Inspection and clearance at different stages of construction works:
(1) Foundation (2) Flooring with ground Anchor (3) Floor levels as specified in tender (4) Roof level (5) MLP track and Drain with embankment (6) Other services & utilities.
- m) Enabling to sort out on the issues on quality of construction arising at site, suggesting measures to improve quality.
- n) Monitoring the progress of work as day to day basis and preparation of weekly/monthly progress reports based on the reports of progress of work by CONTRACTOR.
- o) Party shall bring to the notice of the Department if any slippage or bottleneck occurs at any point of construction.
- p) Ensure that contractors carry out work in accordance with the approved quality assurance plan to meet the quality standards as per standards/codes.
- q) Party shall ensure that Department requirements are totally fulfilled as indicated in the contract by adopting necessary checklists and quality measures.
- r) Assessment of labour required from time to time to meet the targeted construction programme.
- s) Monitoring and follow up of field and laboratory test plan schedules with contractor and ensuring timely carrying out tests for smooth and quality construction.
- t) Checking of accuracy of placement of all inserts/embedment during construction as per required tolerances.
- u) Checking of alignment/leveling of sole plates/I beams/foundation bolts as per the tolerances.
- v) Monitoring the Hydro test and Pneumatic test of pipelines and certifying the same.

- w) Certification of quantity measurements submitted by contractors.
- x) Issue of final acceptance certificate. Verification of acceptance test reports and issue of stage wise inspection report for bill verification and final inspection report at the time of handing over of building. Inspection Agency shall certify the total scope of work carried out and submit three copies of overall inspection document to Department in proper printed formats duly signed including as built drawings.
- y) Extra work / Variation assessment and certification of estimate for recommendation of payment. The decision of the contract manager shall be final as regards extra work/ variation assessment and certification of estimate.
- z) Supplier shall submit the qualification and experience of people to be deployed for obtaining clearance from the Department.

SECTION-C
GENERAL TERMS & CONDITIONS

1. General Terms & Conditions:

- i. Service provider appointed person at site should be a “Competent Person” of Graduate with minimum 10 years & Graduate with minimum 5 years / Diploma with 10 years’ experience of relevant experience in the field of RCC high rise building constructions. However the Inspection Agency shall provide bio-data of the personnel proposed to be deployed for Department’s approval. Addition and deletion in the personnel list shall be effected only with prior approval of ISRO with reasonable advance notice to ensure that inspection services do not suffer at anytime whatsoever.
- ii. The duration of the construction will be 24 months (approx) from the date of Contract subject to extension of services for one more year based on site condition the prices to be indicated accordingly. The schedule is indicative at this stage and may undergo revisions, if required.
- iii. The construction work shall be in general six days in a week and also beyond office hours, holidays whenever required. Deployed staff shall meet the spontaneous demands of construction works.
- iv. Service provider shall make own arrangement for accommodation, transport, medical facility, food, communication facility for their personnel.
- v. Incase of demand for mobilizing additional manpower for few days party shall provide support of one (or) two engineer on daily basis. The cost of such shall be indicated in the price bid.
- vi. Party shall not issue any news release, articles, brochure advertisements, prepared speeches, and other information covering the contract works without written approval of ISRO SHAR regarding the content and timing of such release.
- vii. The technical information, drawings, specifications and other related documents (which are all confidential) furnished by ISRO is the property of ISRO and shall not be disclosed or handed over to

any other agency except for the purpose of execution of the contract.

- viii. Site Office: One room without any office furniture / equipment's will be provided to party to carryout the day to day activities subject to availability.
- ix. Payment Terms: Payment will be made on monthly basis against production invoice and certification by the contract manager.
- x. Taxes: Applicable Service tax shall not be included in the base price but indicated separately in schedule of prices (annexure-1) (percentage of service tax applicable & amount on which it is applicable.)

SECTION-D
ANNEXURES

Annexure I

FORMAT TO BE FILLED AND SUBMITTED BY THE BIDDER

Sl. No.	Description	Qty	Unit rate in Rs.	Amount in Rs.
1	Charges towards Supervision & Inspection Services including logistics, site office cost, etc.			
	(a) One Graduate Engineer with 10 years Experience (One Engineer Deployment)	24 Man Months		
	(b) One Graduate Engineer with 5 years / Diploma with 10 years experience (Max. Two Engineer Deployment)	48 Man Months		
2	Service Tax (S.No. 1. a & 1. b)	%		
Total (1 + 2)				
3	Charges towards Supervision & Inspection Services including logistics, site office cost, etc. (Optional)			
	(a) One Graduate Engineer with 5 years / Diploma with 10 years experience. (Max. Two Engineer deployment)	360 Mandays		
4	Service Tax (S.No. 3 (a))	%		
Total Amount (3 + 4)				
Grand Total				